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**Via Overnight Mail**

James M. Trapp, Director  
Division of Nuclear Material Safety  
U.S. Nuclear Regulatory Commission, Region 1  
2100 Renaissance Blvd., Suite 100  
King of Prussia, PA 19406-2713

**RE: NRC Office of Investigations Report #1-2014-018**

Dear Mr. Trapp:

I am writing on behalf of our client, Tetra Tech EC, Inc. ("Tetra Tech").

By letter dated February 11, 2016 (the "February 11 letter"), your office notified Tetra Tech that an investigation conducted by the NRC's Office of Investigations had identified an apparent violation by Tetra Tech, and that the apparent violation was being considered for escalated enforcement action, including a possible civil penalty. The apparent violation involved Tetra Tech's failure to make or cause to be made, surveys that were reasonable to evaluate concentrations and potential radiological hazards of residual activity in the soil at Hunter's Point Naval Shipyard ("HPNS").

The February 11 letter alleged that between November 18, 2011 and June 4, 2012, certain Tetra Tech employees who were tasked with obtaining soil samples to ascertain the amount of residual radioactivity in specific locations within parcel C at HPNS instead obtained soil samples from other areas that were suspected to be less contaminated. The Tetra Tech employees then represented (on related chain of custody records) that the samples had been obtained from the specified locations. As a result, it could have appeared that residual radioactivity within the specific locations in parcel C was lower than it actually was. The February 11 letter specifically notes that despite this activity, the NRC's investigation did not identify any buildings, land, or materials that had been inappropriately released for unrestricted use.

Tetra Tech has requested a pre-decisional enforcement conference ("PEC") to meet with the NRC and to provide its views concerning this matter. The PEC is scheduled at your offices on March 22, 2016. The purpose of this letter is to provide you with certain information concerning Tetra Tech's perspective prior to the PEC so that you can evaluate that information before the scheduled meeting.

REC-10316-16-000934

### **Background Facts**

In October 2012, during a review of a draft report, the United States Navy identified a concern with respect to some of the final confirming soil samples from a survey unit at Hunters Point Naval Shipyard. Specifically, the Navy identified certain samples where the Potassium 40 ("K-40") results looked lower than the results typically encountered at HPNS.

Once it was informed of this issue, Tetra Tech undertook an investigation of soil sample results from various locations at HPNS. As a part of this investigation, Tetra Tech reviewed its database of 70,000 samples and identified any survey units that appeared to have abnormal results. After evaluating the resampled material, Tetra Tech concluded that soil samples from twelve of the survey units were not representative of the actual sites. In November 2012, Tetra Tech submitted an investigation report to both the Navy and to the NRC concerning its investigation. A final version of this report was later submitted in April 2014 to incorporate comments provided by the Navy. Both the initial and final versions of the report identified multiple corrective actions that Tetra Tech had taken and was continuing to undertake to correct this problem. All of these corrective actions were implemented by January 2013.

The corrective actions that Tetra Tech put in place with respect to this matter included the following:

- All individuals who were listed as having conducted the sampling for the questioned anomalous samples were removed from Tetra Tech projects. The two Tetra Tech health physics supervisors responsible for the soil sample collection work were disciplined and all other relevant project management personnel were issued letters of caution.
- All individuals directly involved in soil sample collection at HPNS were required to attend refresher training on proper soil collection procedures.
- All individuals involved in soil sample collection at the HPNS site were required to attend training on ethical behavior.
- Tetra Tech resampled all twelve survey units where anomalous samples had been discovered during its investigation. Any survey units exhibiting activity concentrations exceeding the release criterion for a respective radionuclide of concern were remediated and resampled until all release criteria were met.
- Tetra Tech also resampled four of the seven locations identified for potential further investigation. These seven locations reported anomalously low K-40 concentrations for some samples. The remaining three locations were not resampled because further evaluation of photographs and samples from the remaining three trenches indicated that the low K-40 was likely due to distinct Franciscan Formation visible in these trenches.
- A protocol was implemented to insure that members of the HPNS Quality Control Team conducted a surveillance of a minimum of 10% of final systemic sample collections.

- An additional protocol was implemented for the corporate RSO to be notified if sampling result trends were inconsistent with previous sampling results. This protocol included K-40 and other radionuclides that are not radionuclides of concern.

Since implementing these corrective actions - all of which were put in place by January 2013 - Tetra Tech has not had a recurrence of the type of soil sample results that led to this investigation, indicating that the corrective actions have addressed the problem.

### **The Proposed Violation**

Following the issuance of the February 11 letter, members of the NRC's staff discussed the apparent violation with Tetra Tech. One of the subjects of that discussion was the proposed Severity Level 3 listing for the violation. During the discussions, the NRC staff indicated that it does not issue Notices of Violation to contractors that self-report and self-correct events listed as Severity Level 4. However, for Severity Levels 1 – 3, the NRC considers these to be escalated violations which result in action even if self-reported and corrected. The NRC staff stated that the Severity Level is based on the threat to public health and that they viewed the HPNS matter as a Low to Medium Severity.

Tetra Tech is requesting reconsideration of the severity rating in this matter. Based on the facts, Tetra Tech believes that this should be treated as a Severity Level 4 incident which should not result in a Notice of Violation because it was self-reported and corrected by Tetra Tech. Tetra Tech believes the following factors are relevant to this issue:

- There was never a threat to public health and safety as a result of this event. The sites with questionable data results remained in Tetra Tech's control the entire time. The concern over sample validity was discovered during an internal review of the reports between Tetra Tech and its client, the Navy. Upon discovery, Tetra Tech conducted a thorough review of all historic site data, identified areas of potential concern, resampled those areas, and performed additional remediation where needed. These sites were never approved for unrestricted release, and were never made accessible to the public. Therefore, there was no threat to public health.
- The HPNS Parcel C work site was not accessible to the public at the time of the proposed violation and is still not publically accessible. HPNS is still under Navy control, with a security guard at the entrance point. In addition, Tetra Tech had the Parcel C work areas secured with fencing, with Radiation Control Technicians posted at gates when opened during work hours.
- The HPNS site has very low levels of contamination that are very near background levels. In fact, the highest level of contamination discovered at HPNS is well below the NRC's recommended cleanup level of 25 mrem/year. This is further evidence that there was no threat to public health as a result of this incident.

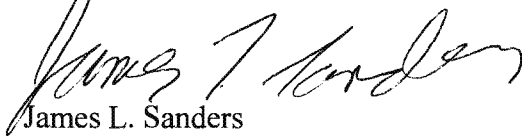
- The NRC investigation recognized that the soil sample issue did not present a risk to the public. The concern with the samples was identified in Fall 2012. Tetra Tech conducted a thorough investigation and provided the NRC with a copy of its report dated November 29, 2012. The NRC notified Tetra Tech of its intent to perform an investigation in June 2014 and provided Tetra Tech with a summary of its investigation report in February 2016. While all of the parties took this issue seriously and acted appropriately, the investigation's timing was consistent with the recognition that Tetra Tech had self-corrected the problem and that there was little risk from the soil sample issue.
- Tetra Tech self-reported this issue to the NRC and self-corrected any deficiencies. Upon discovery of the sampling concern, Tetra Tech conducted a very thorough investigation, and provided copies of the investigation report to both the NRC and its client, the US Navy. Tetra Tech, at its own expense, resampled all areas in question and performed additional sampling, where needed. Tetra Tech also met with the regulatory agencies to explain what happened and the corrective actions taken to correct the situation and prevent future recurrence. In light of the low risk posed by the soil sample issue and in light of Tetra Tech's actions in response, treating this proposed violation as a Severity Level 3 violation runs the risk of discouraging the self-reporting of these types of events.
- The events that give rise to the proposed violation run counter to the strong safety culture that Tetra Tech maintained at HPNS, which surpassed over 2,600 consecutive days without a lost time injury. Tetra Tech encouraged and rewarded site workers for reporting safety, quality, and other concerns. Site workers had multiple alternatives for reporting concerns, including the use of Zero Incident Performance Slips placed into a box at the work site, reporting to anyone in management, reporting to the Site Safety lead, reporting to the Radiation Safety Officer Representative, use of two different hotline numbers available at the site, or calling executive management through the use of wallet cards passed out to all site workers. Thus, to the extent that any individuals acted inappropriately with respect to the soil samples, it was contrary to the culture which Tetra Tech encouraged.
- According to the February 11 letter, the NRC's investigation disclosed that the alleged misconduct was by an RTS (essentially a foreman) and an RCT (an hourly worker). The NRC's investigation in no way implicates willful misconduct by anyone in Tetra Tech's management team. In fact, Tetra Tech's management team directed a thorough investigation and implemented significant corrective actions, including resampling of all areas in question – exactly the type of behavior that the NRC should expect from the management team of its licensees.

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As noted above, we believe that these points and the other items that may be discussed at the PEC support Tetra Tech's belief that a Severity Level 4 rating is appropriate for the proposed violation in this matter. We look forward to meeting with you and discussing this issue.

Very truly yours,



James L. Sanders

JLS:cd